

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 April 2005 (14.04.2005)

PCT

(10) International Publication Number
WO 2005/033536 A1

(51) International Patent Classification⁷: **F16D 3/18**

(21) International Application Number:
PCT/IT2003/000604

(22) International Filing Date: 8 October 2003 (08.10.2003)

(25) Filing Language: Italian

(26) Publication Language: English

(71) Applicant (for all designated States except US): **GAS-PARDO SEMINATRICI S.P.A.** [IT/IT]; Via Mussons, 7, I-33075 Morsano Al Tagliamento (IT).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **PLEYER, Peter** [DE/DE]; Bienenweg, 1, 49152 Bad Essen (DE).

(74) Agents: **FABRIS, Stefano et al.**; c/o Cantaluppi & Partners S.R.L., Via Matteotti, 26, I-35137 Padova (IT).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

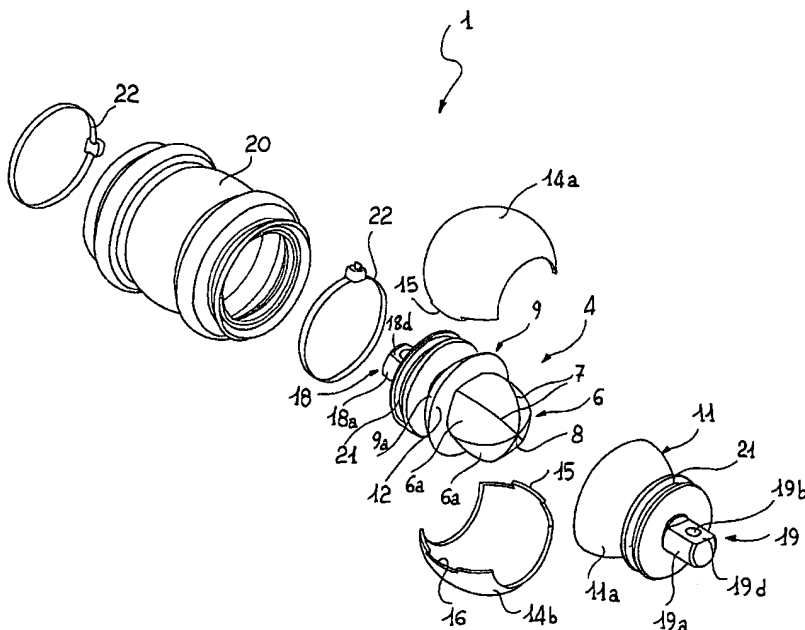
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to the identity of the inventor (Rule 4.17(i)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,

[Continued on next page]

(54) Title: A TRANSMISSION JOINT, IN PARTICULAR FOR TRANSMITTING DRIVE BETWEEN NON-ALIGNED SHAFTS



(57) Abstract: A transmission joint for transmitting drive between a first shaft and a second shaft (2, 3) comprises a first joint element and a second joint element (4, 5) which can be mutually coupled for the transmission of the drive between the shafts, each element (4, 5) being rotatable about a respective first or second axis of rotation (X1, X2). The first joint element (4) comprises an approximately spheroidal body (6) formed by a plurality of adjacent segment-like portions (6a) having curved external profile surfaces and defining, transverse the first axis (X1) cross-sections of the body with polygonal outlines. The spheroidal body (6) can engage a blind axial cavity (10) of the second joint element (5) having a cross-section, transverse the second axis (X2), with a polygonal outline corresponding to the profile of the

body (6) and of dimensions such that the first joint element (4) is housed in the second joint element (5) with mutual torsional coupling and a capability for relative inclination of the axes of the joint elements for the transmission of drive between the said shafts (2, 3) with non-aligned axes. Means are provided on the joint elements (4, 5) for limiting the relative angular inclination of the axes (X1, X2) of rotation or the joint elements, in order consequently to permit the correct transmission of drive between inclined shafts (2, 3), up to a preselected maximum angular inclination (A).



TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.